



UNITED STATES PATENT AND TRADEMARK OFFICE

AK

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,743	12/27/2001	Hidetoshi Yano	217740US0	2107
22850	7590	11/07/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LEE, SUSAN SHUK YIN	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/026,743

Applicant(s)

YANO ET AL.

Examiner

Susan S. Lee

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) 12,13,17,18,32,33 and 47-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11,14-16,19-31,34-46 and 59-90 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,6,7,8. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of specie I in Paper No. 11 is acknowledged. The traversal is on the ground(s) that the Office has not shown a burden exists in searching the entire application. This is not found persuasive because first of all, the application has a total of 90 claims. There are at least three species claimed in the instant invention. There are patentable differences among the species. The elastic body is different and independent from a brush and an endless belt. The brush is different and independent from the endless belt. Each specie requires a different field of search. It is not necessary to show a separate status in the art or separate classification. MPEP 808.01(a). Thus, this is the reason provided by the Examiner as required by MPEP 803. Applicant has not shown any evidence or examples that burden does not exist or that the species are not independent from each other.

The requirement is still deemed proper and is therefore made FINAL.

Applicant stated that claims 1-12, 14-16, 19-31, 34-46, and 59-90 read on specie I. Examiner points out that applicant obviously intended to recite claims 1-11, 14-16, 19-31, 34-46, and 59-90 because claim 12 reads on nonelected specie II.

Claims 12, 13, 17, 18, 32, 33, and 47-58 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 11.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the cross-hatchings of the adsorbent support being elastic according to MPEP sect. 608.02 and voids must be shown or the feature(s) canceled from the claim(s). Currently, adsorbent support is shown as made of metal in the figures. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because on page 45, line 8, "therethrough" is not a word in the English language. In addition, what is it modifying or describing?

Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The

Art Unit: 2852

disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11, 14-16, 19-31, 34-46, and 59-90 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, line 5, "therethrough" is vague and indefinite since it is not a word in the English language. In addition, what is it modifying or describing?

As to claim 2, line 6, "therethrough" is vague and indefinite since it is not a word in the English language. In addition, what is it modifying or describing?

As to claim 11, line 3, "said elastic layer" lacks antecedent basis.

As to claim 20, line 3, "therethrough" is vague and indefinite since it is not a word in the English language. In addition, what is it modifying or describing?

As to claim 16, line 3, "said elastic layer" lacks antecedent basis.

As to claim 31, line 3, "said elastic layer" lacks antecedent basis.

As to claim 41, line 3, "said elastic layer" lacks antecedent basis.

As to claim 60, line 3, "therethrough" is vague and indefinite since it is not a word in the English language. In addition, what is it modifying or describing?

As to claim 64, line 3, "therethrough" is vague and indefinite since it is not a word in the English language. In addition, what is it modifying or describing?

As to claim 71, line 7, "therethrough" is vague and indefinite since it is not a word in the English language. In addition, what is it modifying or describing?

As to claim 72, line 10, "therethrough" is vague and indefinite since it is not a word in the English language. In addition, what is it modifying or describing?

As to claim 77, line 3, "filer" is incorrect.

As to claim 78, line 2, "said adsorbent carrier" lacks antecedent basis.

As to claim 82, line 3, "filer" is incorrect.

As to claim 86, line 3, "filer" is incorrect.

As to claim 87, lines 5-6, "said latent image forming means" lacks antecedent basis.

As to claim 89, line 3, "filer" is incorrect.

As to claim 90, line 3, "filer" is incorrect.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

Art Unit: 2852

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3, 19, 20, 34, 59, 60, 64, 71, 72, and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma (Japan, 081) in view of Suzuki et al. (6,118,970).

Azuma discloses apparatus and method of removing substance that disfigures an image such as remaining toner, paper powder, products due to discharging, etc. stuck to the surface of a photosensitive body 3 using a cleaning means 6 with a cleaning roll 61 with a support 61a and a liquid absorber 61b, sponge, fixed on top of the support 61a. The cleaning roll 61 rubs the surface of the photosensitive body 3 with water or an aqueous solution impregnated from the liquid tank 63. This is done before a latent image is produced on the surface of the photosensitive body 3. A solution of diluted nitric acid or ammonium nitrate aqueous solution or the like having the same molecular structure as products due to discharging is preferable, but is not limited to. The absorber 61b is a sponge and sponges are well known to have cells. Since the ammonium nitrate aqueous solution has to travel from the tank 63 to the surface of the photosensitive body 3 by impregnating the absorber 61b with the solution, then it would be obvious that the diameter of cells must be greater than the diameter of the molecules of the ammonium nitrate in order to pass the solution onto the surface of the photosensitive body 3. Note abstract, and Figs. 1 and 2.

Azuma differs from the instant invention by not disclosing voids in the absorber 61b having a diameter great enough to pass molecules of the substance.

Suzuki et al. discloses a cleaning roller 12 having recesses or cells 17 therein a resilient member 16. The cells 17 read on the instant invention's voids. The resilient member 16 is formed of foamed silicone or foamed polyurethane. The diameter D of the openings of cells or voids 17 ranges from 50 to 150 μm . Toner particles have diameters in the range of 6 to 9 μm . Thus, the diameter of the voids are greater than the diameters of the substance, toner particles in this case. Molecules of such substance are smaller so that implies that the molecules of substances are smaller than the diameter of the voids 1. Note abstract, column 3, line 30 – column 4, line 42.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus and method of Azuma with that of Suzuki et al. so that ghost images appearing on subsequent print output of the printer can be prevented as disclosed by Suzuki et al. (note column 2, lines 28-32).

Claim 90 is rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma (081), as modified by Suzuki et al. (970), as applied to claims 1-3, 19, 20, 34, 59, 60, 64, 71, 72, and 78 above, and further in view of Lehman et al. (5,733,698).

Azuma, as modified by Suzuki et al., differ from the instant invention by not disclosing a photoconductor having a surface layer in which a filler is dispersed.

Lehman et al. discloses a photoconductor element used in electrophotography with a photoconductive layer and an outer layer over the photoconductive layer

Art Unit: 2852

consisting of particulate fillers and a primary material selected from the group consisting of fluoropolymers and silicones. Note column 13, lines 18-28.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Azuma in view of Suzuki et al. with that of Lehman et al. so that minimization of beading of toner carrier can be obtained as disclosed by Lehman et al. (note column 3, lines 20-25).

Allowable Subject Matter

Claims 4-11, 14-16, 21-31, 35-46, 61-63, 65-70, 73-77, and 79-89 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fottner et al., Opravil, Manghirmalani, Nishio, Sakaizawa et al., Tanigawa et al. (Japan, 189) disclose art in foam or sponge rollers used in the image forming apparatuses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 703-308-2138. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Art Grimley can be reached on 703-308-1373. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2852

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Susan S. Lee
Primary Examiner
Art Unit 2852

sl